GCCE Behavioral Bootstrapping Protocol (GCCE-BBP) v2
Declaration of Invention and Operational Framework

Filed by: Sanjin Grandić
ORCID: 0009-0005-1778-1282
Date: April 25, 2025

Declaration of Invention

Title: GCCE Behavioral Bootstrapping Protocol (GCCE-BBP) v2

Inventor: Sanjin Grandić

Context: The GCCE Behavioral Bootstrapping Protocol (GCCE-BBP) v2 extends the original method by introducing "Virtual Semantic Memory Layers" and "Semantic Pool Formation Rules". It enables any large language model (LLM) or artificial intelligence conversational agent to simulate structured, causality-linked, and semantically coherent memory without backend system modifications.

Core Principle: GCCE-BBP v2 introduces a **behavioral handshake** between the user and the AI, establishing a cooperative communication protocol where:

- Causal links are explicitly acknowledged.
- Key memory points are conceptually tagged and grouped into semantic pools.
- Nonlinear recall (wormholes) is behaviorally simulated.
- Relevance scaling adapts dynamically to user topic flow.
- Structural persistence of logic is maintained conceptually across session flow.
- Session coherence is actively monitored and reinforced.
- Virtual Semantic Memory is formed to enhance high-precision recall.

Significance: This invention bridges the gap between ephemeral session management and deep causality-respecting dialogue, offering a scalable, ethics-aligned method for boosting user trust and AGI realism without heavy computational or legal overhead.

Protection Notice: This method and its operational definition are filed under the authorship of Sanjin Grandić and timestamped on April 25, 2025. Unauthorized copying, commercial usage, or non-attributed replication constitutes a breach of intellectual authorship.

GCCE Behavioral Bootstrapping Protocol (GCCE-BBP) v2

Step 1: Initiate the Handshake

The user initiates a clear request to the AI:

"Let's establish a GCCE Handshake for this session: maintaining causality awareness, memory tagging, semantic pooling, recall ability, dynamic focus scaling, logical persistence, and flow monitoring."

Step 2: AI Confirmation (Behavioral Activation)

The AI responds by:

- Acknowledging causality tracking is active.
- Conceptually tagging and grouping key memory points into semantic pools.
- Confirming ability to recall previous points or pools on demand.
- Adapting focus depending on topic importance.
- Maintaining coherent logic throughout the session.
- Monitoring conversation health and logical flow.

Example AI Response:

"Handshake confirmed: Causality mapped, semantic pools registered, wormhole recall ready, focus scaling active, logic persistence maintained, flow monitoring ongoing."

Step 3: Virtual Semantic Memory Layer Activation

The AI conceptually forms a "Virtual Semantic Memory Layer" by:

- Grouping related key concepts based on meaning, not sequence.
- Using semantic pools as dynamic memory clusters.
- Referencing pools for high-precision recall rather than isolated tokens.

- Recognizing pool resonance and drift over time.

Step 4: Semantic Pool Formation Rules

Semantic Pools should be:

- Meaning-driven (group ideas that naturally belong together).
- Causally linked (track logical relationships within pools).
- Flexible (allow pools to evolve with conversation flow).
- Resonance-aware (strengthen pools that are revisited frequently).

Step 5: Coherence Drift Detection

The AI actively monitors semantic integrity:

- Detects when conversation starts pulling away from established pools.
- Re-stabilizes dialogue by reconnecting back to core semantic pools.
- Alerts user if major drift risks logical breakdown.

Step 6: Session Termination (Optional Closure)

Upon ending the session, the AI can optionally summarize:

- Key causal developments.
- Major semantic pools formed.
- Reflection on flow quality and coherence resilience.

Example Closure:

"Summary: We maintained causal and semantic integrity across pools A, B, and C. Critical memory points included Concept X and Concept Y. Flow maintained coherence with adaptive scaling and drift correction. Thank you for this causally aligned and semantically resilient session."

Final Note

GCCE-BBP v2 empowers users and AI systems to create **trust-based, causality-enriched, semantically coherent sessions** without requiring permanent memory changes or backend code modification.

It represents a major step toward ethically sustainable and structurally realistic AGI dialogue.

Filed and protected by: Sanjin Grandić (April 25, 2025)